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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/892,465	06/28/2001	Yuuichi Togashi	04329.2580	3751

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EXAMINER

MARIAM, DANIEL G

ART UNIT PAPER NUMBER

2621

DATE MAILED: 07/02/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/892,465

Applicant(s)

TOGASHI ET AL.

Examiner

DANIEL G MARIAM

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Translation

1. An unofficial computer English translation, which has the same format (i.e., paragraph numbers) as Japanese Patent Numbers (07-220025, 08-153178, and 2000-113099) is provided to the applicant. This translation is also available on-line at (URL):

http://www.ipdl.ipd.go.jp/homepg_e.ipdl, and use the following instruction to get the

unofficial computer English translation of the '610 JP patent:

Click on searching PAJ
Click on Number Search
Enter the number and click search
In the results window click on the number.
Click on details at the top.
A separate framed window comes up.
In the top frame, click the section that you
want translated. It is slow so be patient. To
print, just click somewhere in the frame with the
translation, and click on print.

The Examiner has used the unofficial translation for the interpretation of Japanese Patent

Numbers: 07-220025, 08-153178, and 2000-113099. An official translation will be provided with the next Office Action, up on applicant's request.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 6, 8 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Hori (Computer Translation of Japanese Patent Number: 07-220025).

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With regard to claim 1, Hori discloses a document recognition apparatus (See for example, Fig. 1) comprising: means for continuously sensing part of a document to be recognized (See for example, item 10, in Fig. 1. Also note, at paragraph 26, Hori states: “since the image memorized by (S9) contains some photographic subject manuscripts, it investigates whether actuation of forbidding photography of the remaining document is made (S15). If actuation of the ban on photography is not made, (S9) and photography are continued”); means for calculating, i.e., detecting, for each sensed document image a shift amount, i.e., movement magnitude, of a character string image of a document image to be compared, i.e., searched, from a character string image of a specific document image among a plurality of sensed document images (See for example, paragraphs 26-27); and means for, when the calculated shift amount reaches a predetermined amount, i.e., movement magnitude reaches a predetermined value, compositing, i.e., composition and/or synthesizing, a new character image in a character string image of a document image of which shift amount reaches the predetermined amount, with the character string image of the specific document image, thereby generating a document image (See for example, paragraphs 28-32; and paragraphs 51-54).

With regard to claim 2, an apparatus according to claim 1, further comprising means for storing a partial image of the continuously sensed document (See for example, paragraph 24).

With regard to claim 6, an apparatus according to claim 1, further comprising means for displaying images of some of a plurality of documents which have successively been sensed and are to be recognized (See for example, paragraphs 37-39).

Claim 8 is rejected the same as claim 1 except claim 8 is a method claim. Thus, argument similar to that presented above for claim 1 is equally applicable to claim 8.

Claim 12 is rejected the same as claim 6 except claim 12 is a method claim. Thus, argument similar to that presented above for claim 6 is equally applicable to claim 12.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-5 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hori (Computer Translation of Japanese Patent Number: 07-220025) in view of Hikage, et al (Computer Translation of Japanese Patent Number: 08-153178).

With regard to claim 3, Hori discloses all of the claimed subject matter as already discussed above in paragraph 3, and the arguments are not repeated herein, but are incorporated by reference. Hori further discloses means for obtaining a row region of the document image to be compared where the character string image is present (See paragraphs 47-54). Hori, however, does not expressly disclose means for obtaining row feature projection data representing a luminance feature in the obtained row region, and means for calculating a shift amount, i.e., movement magnitude, of the character string image of the document image to be compared from the character string image of the specific document image on the basis of row feature projection data of the specific document image and row feature projection data of the document image to be

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compared. However, Hikage, et al. (See Figs. 3 and 4) teaches this feature. Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching taught by Hikage, et al. into the system of Hori, if for no other reason than to compute the movement magnitude based on the row feature projection, and to do so would at least increasing the rate of recognition.

With regard to claim 4, an apparatus according to claim 1, wherein said means for calculating the shift amount comprises: means for obtaining a column region of the document image to be compared where the character string image is present; means for obtaining column feature projection data representing a luminance feature in the obtained column region; and means for calculating a shift amount of the character string image of the document image to be compared from the character string image of the specific document image on the basis of column feature projection data of the specific document image and column feature projection data of the document image to be compared (See Figs. 3 and 4).

With regard to claim 5, an apparatus according to claim 1, wherein the predetermined amount is determined on the basis of a shape of row feature projection data of the specific document image (see Figs. 3 and 4).

Claims 9, 10, and 11 are rejected the same as claims 3, 4, and 5 respectively except claims 9, 10, and 11 are method claims. Thus, arguments similar to those presented above for claims 3, 4, and 5 are respectively applicable to claims 9, 10, and 11.

6. Claims 7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hori (Computer Translation of Japanese Patent Number: 07-220025) in view of Hayashi (Computer Translation of Japanese Patent Number: 2000-113099).

With regard to claim 7, Hori discloses all of the claimed subject matter as already discussed above in paragraph 3, and the arguments are not repeated herein, but are incorporated by reference. Hori further discloses means for converting the generated document image into first document data, means for displaying the converted first document data, means for, when part of a document to be recognized is zoomed in and sensed by said image sensing means on the basis of the displayed first document data, converting image data of part of the document which has been zoomed in and sensed into second document data (which reads on paragraphs 33-38). Hori, however, does not expressly disclose means for replacing a character of the first document data that is different from the second document data, by a character of the second document data that corresponds to the different character. However, Hayashi (paragraphs 12 and 50-61) teaches this feature. Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching a taught by Hayashi into the system of Hori, and to do so would at least minimize the misrecognition rate, and thereby achieving accurate recognition of the characters.

Claim 13 is rejected the same as claim 7 except claim 13 is a method claim. Thus, argument similar to that presented above for claim 1 is equally applicable to claim 13.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US Patent Numbers: 5257328, 5563959, 5703962, 5781660, and 6683983.

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8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DANIEL G MARIAM whose telephone number is 703-305-4010. The examiner can normally be reached on M-F (7:00-4:30) FIRST FRIDAY OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LEO BOUDREAU can be reached on 703-305-4607. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



DANIEL MARIAM
PRIMARY EXAMINER
June 28, 2004